

Clypeodytes (Lioclypeus) horai Vazirani

Clypeodytes (Hypoclypeus) duodecimaculatus Regimbart

Clypeodytes (Hypoclypeus) severini (Regimbart)

Clypeodytes (Paraclypeus) hemani Vazirani

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26. THE ROLE OF VISUAL AND OLFACATORY FACTORS IN THE PREY-HUNTING BEHAVIOUR OF POMPILID WASPS (HYMENOPTERA: POMPILIDAE)

The Pompilid wasps are known to provision their nests in the ground with spiders which are stung and paralysed. The authors made the following observations of the prey-hunting behaviour of a species of Pompilid wasp (unidentified) inside the house during the day. The wasp generally flies into the room, flies close to the ceiling and the corners of the walls and then hovers around a spider's web. It then makes repeated quick approaches to the central hub of the web, finally seizes the spider and flies away with it.

Interestingly enough, the wasp was sometimes found flying around an electric bulb backed by a plate-like shade and mounted on a bracket on the wall. It exhibited for some time, about the same pattern of initial behaviour as that in relation to the spider's web and then flew away. Closer observation revealed that the wasp was repeatedly dashing against the central circular marking at the distal end of the bulb, bearing details of trade mark, voltage, wattage etc. It is quite likely that the wasp mistook this slightly dark, circular part of the bulb for the denser translucent central hub of a spider's web where the spider generally remains at rest, and was looking for its prey.

The authors also came across an instance wherein the wasp accidentally dropped the spider while flying away with it. The dropped spider was slowly moving on the floor and the wasp started hovering over the area, presumably trying to locate its lost prey. The wasp then landed on the floor and started making random movements. Within a few minutes, it appeared to have made out the track of the spider and was found moving approximately along the route taken by the spider. It seemed to follow some kind of trail, moving its antennae in a characteristic manner. The wasp finally reached the spider, seized it and stung it before flying away with it.

The Pompilid wasp, having distinct preference for spiders, would be at an advantage if it can identify its prey with some degree of accuracy and from a distance to avoid waste of time. In the case of its behaviour in relation to the electric bulb, all stimuli except visual are ruled out. It is therefore inferred that the visual factor either through form-vision or skototaxis initially guides the wasp to the hub of the web containing the spider. The final choice and capture of prey may be conditioned by olfactory or tactile factors which may reinforce or destroy the first impressions.

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27. ABSENCE OF COLONY-SPECIFIC PHEROMONES IN THE ANT, *TECHNOMYRMEX ALBIPES* SMITH (HYMENOPTERA : FORMICIDAE)

Highly colony-specific pheromones have been well established in the case of colonies of certain ants, honeybees and other social insects and these pheromones enable the insects concerned to distinguish between members of their colonies and also intruders from other colonies of the same species (Butler 1967).

Technomyrmex albipes is a common tramp species occurring in tropical and subtropical countries, with its original home in tropical Asia or Africa (Brown 1964). Colonies of this ant were collected from among the leaf-whorls of bamboo shoots and transferred to an artificial ant-nest in the laboratory. Mixing a few colonies of the ants was also tried by dropping the ants, eggs, larvae and pupae of different colonies into the same nest in the laboratory. It was interesting to see that the ants which moved about in the new environment for some time, soon